

WHERE DOES THE LARGE-BILLED SPARROW
SPEND THE SUMMER?

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IN THE January issue of 'The Auk,' 1905, Mr. Joseph Grinnell has given us some interesting notes on the Large-billed Sparrow (*Passerculus rostratus*), and called attention to the fact that this species, which is in winter abundant all along the coast of southern California and the northern half of Lower California, has until the present time succeeded in keeping its breeding ground so well hidden that with all of the dozens of trained collectors that have studied the species on its range, none seem to be able to state where it nests.

It is no doubt true that there has been no authentic record of eggs found or nests taken, but the region is so well known both north and south of the winter home of the Large-billed Sparrow, and the local lists for the coast from San Francisco south are so complete, that I think we can locate the summer and breeding range of this species within fairly definite limits and with reasonable accuracy. I think that perhaps the shortest route to the probable nesting grounds will be by a process of elimination of some of those sections where it does not nest.

So far the most northern record for the species is Santa Cruz, nor is it at all common north of Point Conception, I think. If the nesting ground were to be sought for in the north, certainly some of the many collectors in the region of San Francisco would have reported migrating birds, and as none have been recorded, we may for the moment consider the coast region of the north as out of the nesting habitat.

As for the winter range, anyone who has collected in the tide flats about San Diego Bay can testify that here at least they swarm until March 5 or later. Such cover would seem to best suit the requirements of the species, for I have found them equally abundant in all similar localities south of San Diego, notably San Quintin, Lower California, and Todas Santos Bay, south of Ensenada.

That there is a regular migration is attested by their appearance

in September on all of the coast islands that I have visited in that season from San Clemente south as far as Natividad, and including Cerros and Los Benitos. On this last is found a subspecies (*P. r. sanctorum*) that no doubt was derived from *rostratus* that in the past lingered on this island to nest and in time became resident. The Large-billed and San Benito Sparrows are equally abundant along the beaches, gleanng a livelihood from beds of stranded kelp, over which they skurry like mice in search of insects and small marine life.

Nests of *sanctorum* were found by both R. C. McGregor and myself, one being in a low bush about one foot from the ground, and the others well hidden in shallow depressions in the soil and overhung by vegetation, very similar in fact to the nests of *beldingi*, except that the Benito Islands offer no tide flats or marsh lands and *sanctorum* is obliged to nest on dry ground.

Nor does *rostratus* nest on any of the islands of the west coast of Lower California, as my visits to those islands have been frequent, and I have found the species as a winter visitant only.

The ocean beaches as far as Cape St. Lucas offer also winter range for *rostratus*, but while they are by no means rare on both sandy and rocky shores, they are nowhere really abundant away from the tide flats of the bays.

So far as an inland breeding range is to be considered, I have never seen a Large-billed Sparrow over half a mile from tide water, and one that wanders over a few hundred yards from the tide flats or beach is at once noticed as out of place by those who are familiar with the species, which is, according to my experience, strictly littoral.

So much for a few of the places that, for the purposes of this article, it may be considered that the species does not breed. As for a breeding range in a distant or southern country I will presently show that such is at least highly improbable.

San Ramon is a Mexican ranch on the coast of Lower California about 25 miles north of San Quintin Bay. Mr. Grinnell has quoted me as reporting a nesting *rostratus* from this point but would seem to doubt the validity of the record. At the present writing I have a very distinct recollection of the bird mentioned and a glance at the conditions surrounding that region may throw some light on

the question at issue. The beach at this point was, in 1887, thickly covered by drift wood, which reached back some two hundred feet to the sand dunes and was often piled up several feet in height. Through these tangled piles of drift *rostratus* were running, dodging in and out very much after the manner of Rock Wrens in a pile of rocks, and it was one of the many seen here that I shot and recorded as a nesting bird on the evidence of a swollen and bare breast.

I was at that time unfamiliar with the fauna of the coast, and supposed that I would find plenty of nests at San Quintin, my next camp. I allowed the opportunity to pass, and in several years spent in Lower California never again collected at San Ramon. Several years later, in discussing the possible nesting grounds of this species with Mr. A. M. Ingersoll of San Diego, he told me of seeing a Large-billed Sparrow collecting the larva of the flesh fly about the carcass of a cow near San Diego. The very businesslike way in which the bird flew away, maintaining a direct flight as far as his eye could follow, led him to believe that it went direct to a nest of young, but at such a distance that he was unable to locate it. There is no doubt in my mind that Mr. Ingersoll did happen on a nesting bird, but perhaps one somewhat out of the nesting ground proper, for I have since then, on two or three occasions, found families of young that were still fed by their parents on the beach near Ocean Side, not far from where Mr. Ingersoll found the bird that I recorded. The fact that these young were still in groups of three to four, and still fed by one or both parents, would argue that the nesting ground was not many miles distant.

In searching for a possible breeding ground my thoughts harked back to the San Ramon capture, and I recalled that a few hundred feet back from the beach occurred a number of small lagoons caused by the river being cut off from entrance to the Pacific by a series of sand dunes and bars, a very common condition and one found at the mouths of many of the shallow 'rivers' of southern and Lower California. These shallow ponds, extending for perhaps half a mile along the beach, were thickly grown along the banks with tules, furnishing cover for many of the birds of that region. During the few hours spent in collecting at this camp I paid no attention to this cover, being more interested elsewhere, so I am unable to say whether *rostratus* inhabited these thickets, but the piles of drift

I have mentioned were but a stone's throw distant, and from what I now know of the habits of the species, I would expect to find the nest in just that character of cover rather than in the drift wood where the birds were feeding.

Tule swamps are found bordering the beach, at the mouths of several of the streams north of San Diego but so far as I know no one has reported on the birds nesting there.

As Mr. Grinnell has said, "it might not be a sin to speculate somewhat in this regard." Can we not by defining the north, east, and south boundaries beyond which we are reasonably sure the species does not pass, mark the probable summer habitat? It is true the absence of summer records would reduce this more or less to a matter of individual opinion, and my own opinion, based on more than ten years' observation, is that the Large-billed Sparrow is resident along that part of the coast south of San Pedro to San Ramon, Lower California, and that it merely retires to its nesting ground a few miles distant to return in August. An overflow migration carries the species to the islands and as far as Cape St. Lucas, but I very much doubt any being found nesting south of San Ramon, or possibly the valley of the Rosario River about fifty miles south of San Quintin.

If we accept this as the probable summer habitat it remains to find the nesting ground, and I agree with Mr. Grinnell that it is not in the salt marshes. They have been well explored, and from San Quintin north *beldingi* is the only member of the genus to be found in these localities after the nesting begins.